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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,298	03/27/2001	Ruth D. Kreichauf	1004.1136102	8636

128 7590 11/03/2004

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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,298

Applicant(s)

KREICHAUF, RUTH D.

Examiner

MONZER R CHORBAJI

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 32-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 32-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This non-final office action is in response to the amendment received on 09/30/2004

Remarks

1. In response to the remarks submitted in the amendment after final on 09/30/2004 the final office action dated 07/29/2004 has been withdraw.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-2, 5, 32, 36 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoag (No Such Thing As Doomsday).

With respect to claims 1, 32, 36, 44 and 45, Hoag discloses a building (shelter building is equivalent to the feature building in the instant claims used to provide a human life sustaining atmosphere in case of a chemical or biological attack) with multiple rooms (page 13, under the subtitle "start decontamination as soon as possible",

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lines 2-4 or page 15, under the subtitle "decontamination room", lines 1-5) having air ducts (page 5, subtitle "air intake and exhaust ducts, and an HVAC system (page 4, under the subtitle "air conditioning, lines 9-16). So, within this building there is a minimum of at least one room having air ducts accommodating the building air supply and return ducts. In addition, Hoag teaches the use of oxygen generator/carbon dioxide scrubbing device connected to the rooms (page 6, under the subtitle "sealed shelter atmosphere"). Also, Hoag teaches that in case of biological or chemical attack the building shelter has to be sealed from the outside air (page 6, under the subtitle "sealed seal atmosphere" and page 8, under the subtitle "blast valves and gate valves". As a result, the air supply ducts of at least one room are sealed from the outside air depending if the shelter is one room shelter building or multiple room shelter building. Under the subtitle "decontamination room", Hoag teaches that shelters can be big or small in size. For example, a one room shelter building with walls such that the outside structure is considered as the building and the inside structure is considered as the room. The Hoag reference fails to explicitly teach sealing off air return ducts. On page 8, the Hoag reference teaches closing up all connections in case of an extremely high level of contaminants outside. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to close up any connection that can be a source of contamination including air return ducts as taught by the Hoag reference in order to protect the lives of individuals living inside the shelter.

With respect to claims 2, 5, 42 and 46-47, Hoag discloses the use of a device to generate gaseous oxygen (page 6, under the subtitle "sealed shelter atmosphere"), a

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chemical oxygen source (page 6, under the subtitle "air intake and exhaust ducts, lines 19-20) and the use of carbon filters (page 8, subtitle "carbon filters"

5. Claims 3-4 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoag (No Such Thing As Doomsday) in view of Mulcahy (U.S.P.N. 4,901,715).

Hoag fails to disclose an oxygen generator that includes an exhaust tube, which has a terminal free end outside of the room or a plumbing fixture having a water trap. However, Mulcahy discloses an apparatus for establishing gaseous communication between a room of a building, wherein the room contains a toilet bowl, and a building conduit disposed within the building. The building conduit is in gaseous communication with the atmospheric gases outside of the building. The toilet bowl has a water level forming a water trap and the toilet bowl includes a flexible water-impermeable, tubular member inserted completely through the water trap so that a first end of the flexible tubular member is disposed on a building conduit side of the water trap and a second end of the flexible tubular member is disposed on a room side of the water trap (see figures and co.2, lines 38, col.3, line 26). Additionally, it is shown in figure 5 that the user end of the apparatus inside the room may be a breathing mask (94). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hoag and add a plumbing fixture having a water trap and exhaust tube as taught by Mulcahy in order to exhaust the carbon dioxide gas accumulated in the shelter's atmosphere.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoag (No Such Thing As Doomsday) in view of the applicant's admitted state of the prior art.

Hoag does not disclose that the chemical source includes a chemical compound, which generates oxygen in the presence of water. Also, Hoag does not disclose a chemical air revitalization compound such as potassium superperoxide. However, the applicant discloses on page 8, lines 6-16, that water based chemical generators for generating oxygen are well known to those skilled in the art. Further, the applicant discloses on page 10, lines 18-22, that it is well known to use air revitalization compound such as potassium superperoxide in order to remove carbon dioxide and generate oxygen. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hoag and replace the oxygen generator with a functionally equivalent oxygen source such as a chemical oxygen source or an air revitalization compound, which are admitted by the applicant as being well known to those skilled in the art.

7. Claims 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoag (No Such Thing As Doomsday) in view of the applicant's admitted state of the prior art.

Hoag does not teach an air-revitalizing device such as potassium superoxide. The applicant discloses on page 10, lines 18-22, that it is well known to use air revitalization compound such as potassium superoxide in order to remove carbon dioxide and generate oxygen. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hoag and replace oxygen means source and carbon dioxide scrubber with a functionally

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equivalent air revitalization compound that both removes carbon dioxide and generates oxygen as admitted by the applicant as being well known.

8. Claims 2-4, 33-35 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoag (No Such Thing As Doomsday) in view of the applicant's admitted state of the prior art.

Hoag does not disclose an air-revitalizing device, which includes an oxygen generator that electrolyzes water, an exhaust tube for discharging waste gas from the oxygen generator, a plumbing fixture having a water trap, a carbon dioxide filter, or a carbon dioxide converter. The applicant has disclosed, on pages 7-11, that the limitations of claims 2-4, 33-35 and 39-43 are well in the art. They are functionally equivalent alternatives, which are known to generate oxygen and remove carbon dioxide from an atmosphere. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hoag and substitute the oxygen source and carbon dioxide scrubber with any known functionally equivalent means of generating oxygen and removing carbon dioxide such as those disclosed by the applicant as being well known in the art.

Response to Arguments

9. Applicant's arguments with respect to claim 1-8 and 32-47 have been considered but are moot in view of the new ground(s) of rejection.

On pages 8-9 of the Remarks section, applicant argues, "There is no teaching, suggestion, or motivation in Hoag of a building with separate rooms in which a room is sealed off from the air return and supply ducts of the building." As mentioned above, the

Hoag reference teaches that in case of biological or chemical attack the building shelter has to be sealed from the outside air (page 6, under the subtitle "sealed seal atmosphere" and page 8, under the subtitle "blast valves and gate valves"). As a result, the air supply ducts of at least one room are sealed from the outside air depending if the shelter is one room shelter building or multiple room shelter building. In addition, on page 8, the Hoag reference teaches closing up all connections in case of an extremely high level of contaminants outside. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to close up any connection that can be a source of contamination including air return ducts to individual rooms as taught by the Hoag reference in order to protect the lives of occupants living inside the shelter.

On pages 10-11 of the Remarks section, applicant argues, "The entire disclosure of Hoag directed to avoiding what Mulcahy is striving to do-bring outside air into the building. Thus, there motivation for one to combine the teachings of Mulcahy and Hoag." The examiner disagrees. The Mulcahy reference places a filter device (60) on the oxygen line such that contaminants are prevented from entering the shelter. The device of the Mulcahy reference is intrinsically capable brining and exhausting air depending on the intended use. Thus, it would have been obvious to having ordinary skill in the art at the time the invention was made to modify the invention of Hoa add a plumbing fixture having a water trap and exhaust tube as taught by Mulcahy in order to ex the carbon dioxide gas accumulated in the shelter's atmosphere.

Conclusion

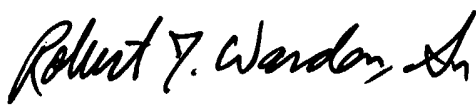
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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monzer R. Chorbaji MRC
Patent Examiner
AU 1744
10/25/2004


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